

# Liquid Sampler 780

## General

MJK's 780 Automatic Sampler combines a rugged build and a simple operation. Based on external switches (either flow paced or manual), manual on board switching, or optional flow rate integration component, the 780 will implement a complete liquid sample sequence.

In accordance with approved sampling protocols, the 780 will execute a line flush and fill before taking a precisely measured sample and sending it into a composite sampling container or individual sample jar. Since it uses a diaphragm vacuum pump, the 780 does not need special expensive peristaltic pump tubing and does not have tubing failure issues. Self-diagnostic systems will detect line obstructions and make an attempt to clear lines automatically to either succeed in the sampling or indicate an alarm condition.

## Features

- Waterproof (NEMA 12) stainless steel construction
- Compact size 6.5 x 9.3 x 16.1 in.
- Wall mounting with 3 screws
- Internal (manual) and external (flow and time proportional) sample activation.
- Dual supply (12 VDC or 115 - 230 VAC)
- Built-in alarm system and self-redress in case of obstruction

## Application

The 780 Liquid Sampler is designed to take samples from lakes, rivers, sewage systems, pumping stations, etc. The sampler 780 can be connected directly to MJK Flow Converter 713, MagFlux Flow meter or other flow meters, for flow proportional sampling.

## Operation

The 780 Liquid Sampler uses the pressure and vacuum sampling method. When the sampler receives the start signal from either the control panel or an external controller, the sample tube is pressurised to clear it of any residue from the previous sample. The vacuum is then turned on until the sample glass is full. Then the glass is again pressurised to clear the surplus liquid from it leaving the required sample (0.7 to 16.9 fluid ounces) in the glass. Sample time can be adjusted to compensate for long inlet tubing needing more time to clear. When the required level is reached the outlet valve opens and the sample runs into the collecting vessel.

If the sample does not fill within a set time, it's because the sample tube is blocked or the sample input tube is too long, the vacuum is switched off and the sampler repressurises the sample tube to clear the obstruction and starts again. If the sampler fails again the alarm signal is sent and the error display on the control panel is illuminated.

The 780 is constructed with a stainless steel housing for durability and all modular design so cleaning and maintenance is easy to ensure proper operation.



## Specifications

### Mechanical data

Cabinet	Stainless steel welded construction
Enclosure	NEMA 12 (IP 55)
Weight	11 lbs. (5 kg)
Dimensions	6.5 x 9.3 x 16.1 in.

### Sample data

Cycle time	Approx. 2 minutes (adjustable 1-10 mins.)
Sample size	0.7 - 16.9 fluid ounces (US)
Vacuum	max. 10.7 psi
Pressure	max. 108.8 psi (pressurise the sample tube)
Inlet tube	0.35 in. i.d. PVC tube
Outlet tube	0.37 in. i.d. silicone tube

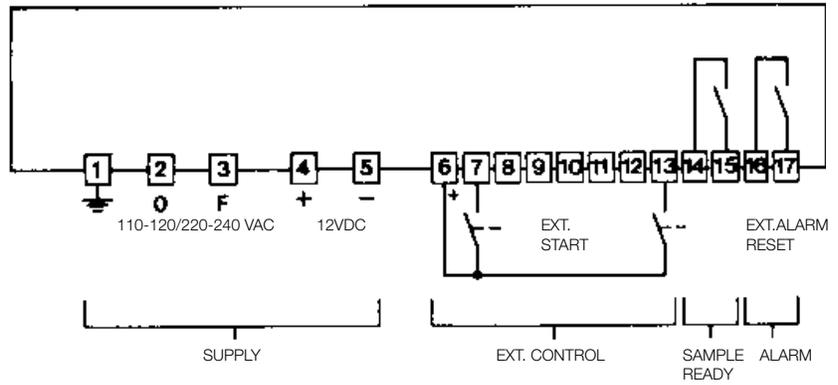
### Electrical data

Voltage	12 VDC or 115/230 VAC
Consumption	2 W in stand-by mode, 30W in operation

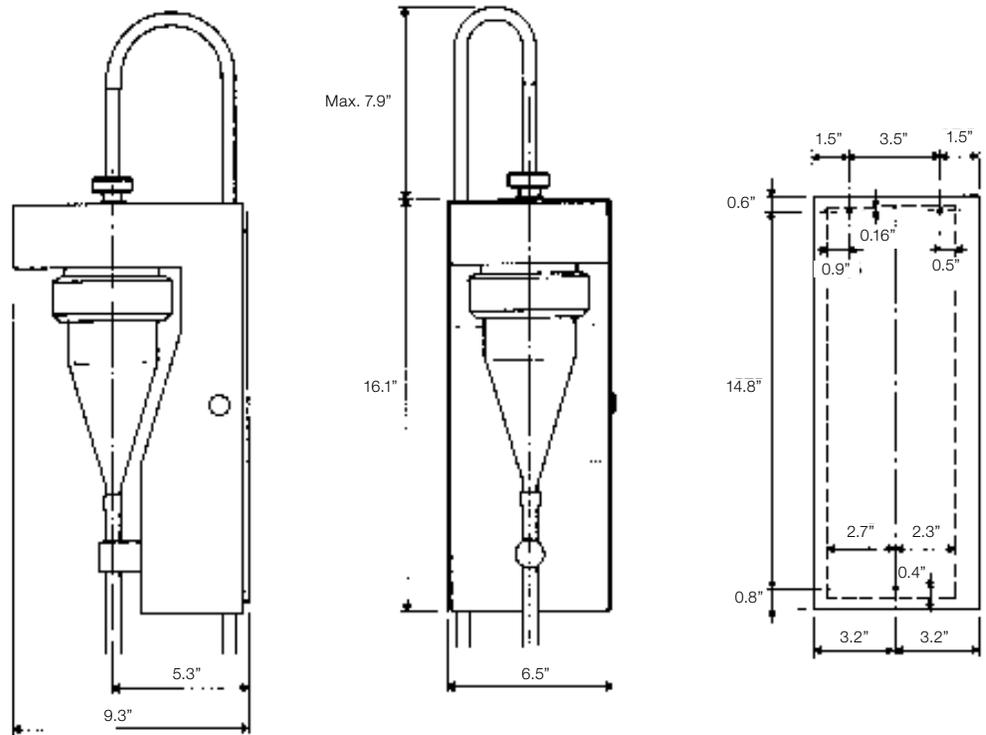
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Connections



Dimensions



Order Numbers and Specifications

Order Numbers and Specifications	
Order number	Specification
293520	780-1100 Liquid sampler with 115V/230 VAC and 12 VDC supply voltage
203551	783-1320 Integrator 4-20mA
595110	Sample glass
595120	Inlet tube, PVC see MJK06408-55CP
595121-ft	Outlet tube, silicone



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